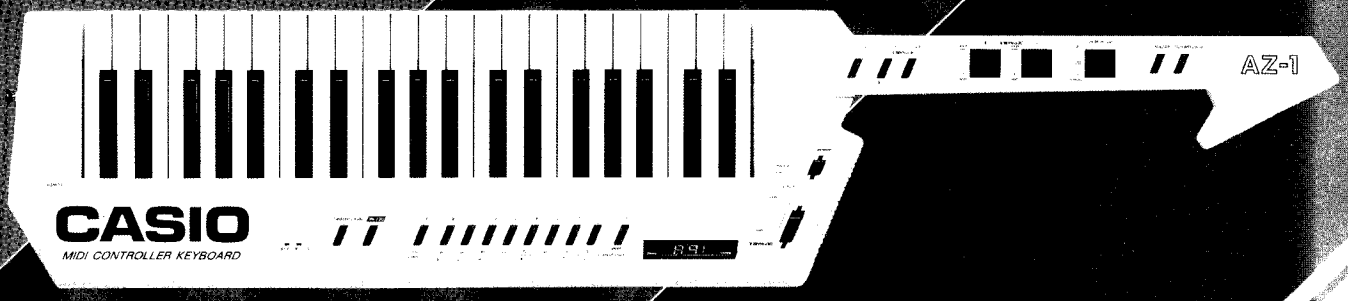
# CASIO AZ-1

MIDI CONTROLLER KEYBOARD




OPERATION MANUAL 1
MANUAL DE OPERACION 23

Thank you, and congratulations on your choice of the AZ-1 MIDI CONTROLLER KEYBOARD. The AZ-1 is a strap-on MIDI keyboard controller, which gives you accurate and flexible control of MIDI sound sources, such as MIDI synthesizers.

The AZ-1 features 5 "DEFINABLE CONTROLLERS" which let you freely control MIDI parameters set on connected sound sources — such as Initial and After Touch, or up to 128 different Tone Programs. And it features two different MIDI Transmission Channels, and a Dual Mode for simultaneous control of both MIDI Channels. Versatile MIDI control, in a compact, lightweight unit that's ready to give you total mobility in live performances.

To assure optimum performance and long-term reliability, please read this manual carefully before using the AZ-1.

Also, be sure to keep this manual in a safe place for future reference.

**NOTE:** This unit can only be used to control functions which are available on the device utilized as the sound source, such as MIDI synthesizers. For information on which functions are actually available, refer to the Owner's Manual for the device you intend to use as a sound source.

# CONTENTS


■ FEATURES & FUNCTIONS 3

■ POWER SUPPLY 5

(1) Using Batteries ..... 5
(2) Using an Adaptor ..... 5
(3) Power Down ..... 6
(4) Function Status After Initialization ..... 6
(5) MIDI Messages Output at Power ON ..... 7

■ CONNECTIONS 8

■ SETTING MIDI CHANNELS 9

(1) Setting Transmission Channel Modes ..... 9
(2) Setting Transmission Channel Numbers ..... 10

■ PROGRAM CHANGE 11

■ AZ-1 BASIC FUNCTIONS 13

(1) Key Velocity ..... 13
(2) After Touch ..... 13
(3) Pitch Bend ..... 13
(4) Portamento ..... 13
(5) Sustain ..... 13
(6) Solo ..... 13
(7) Octave Shift ..... 13

■ DEFINE FUNCTION 14

(1) 5 Definable Controllers ..... 14
(2) Function Settings at Initialization ..... 14
(3) Define Operations ..... 15
(4) Messages Which Can Be Defined ..... 16

■ CONVERT FUNCTION 19

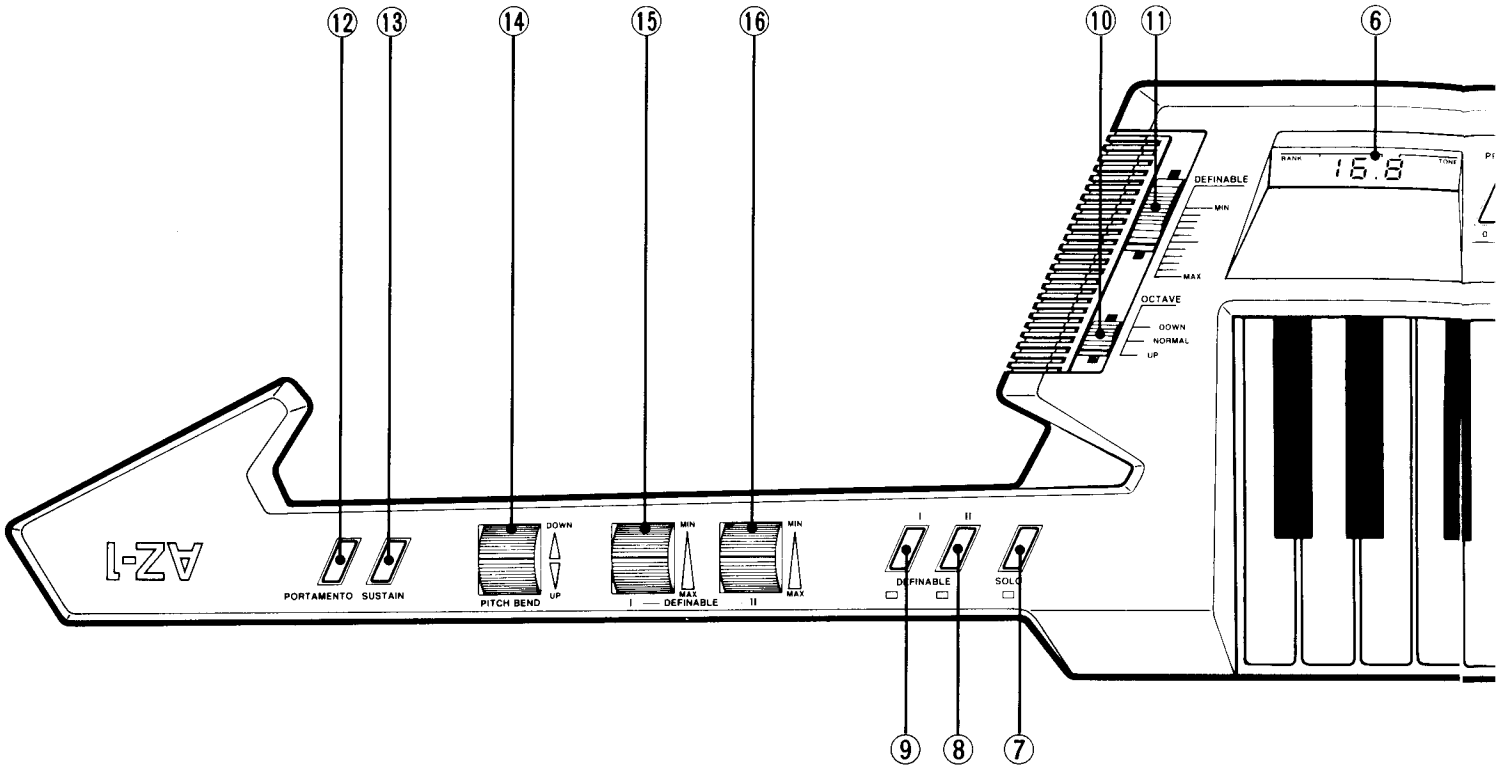
(1) Converting Numbers Assigned to Definable Controllers ..... 19
(2) Changing Transmission Channel Numbers ..... 19

■ CARE OF YOUR UNIT 20

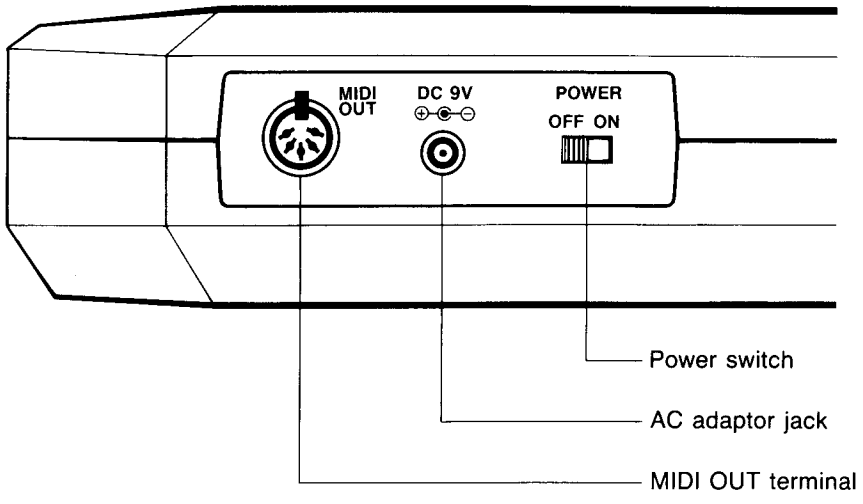
■ SPECIFICATIONS 21

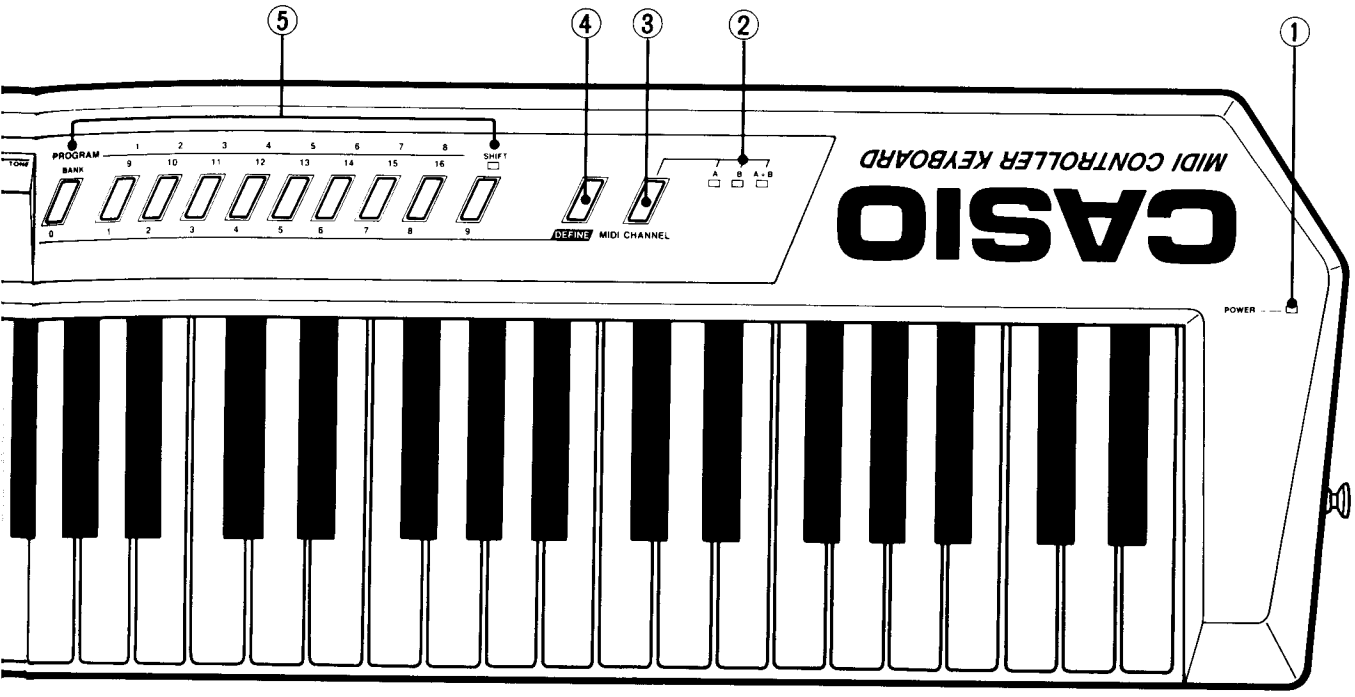
# FEATURES & FUNCTIONS

## FRONT PANEL




## REAR PANEL






① Power Indicator
② MIDI Channel Indicator
③ MIDI Channel Key
④ Define Key
⑤ Programmer Section
⑥ LED Display Section
⑦ Solo Key
⑧ Definable II Key
⑨ Definable I Key
⑩ Octave Shift Switch
⑪ Definable Slider
⑫ Portamento Key
⑬ Sustain Key
⑭ Pitch Bend Wheel
⑮ Definable I Wheel
⑯ Definable II Wheel

# POWER SUPPLY

## (1) Using Batteries

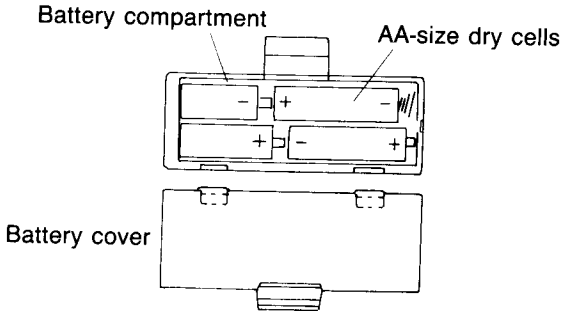
### •Dry cells

This unit can be powered by six AA-size (SUM-3) dry cells. Weakened batteries will result in lower volume, poor tonal quality, or a difficult to read display. The power indicator lamp will gradually lose its brightness as battery power weakens. At this time, replace batteries or change to one of the other power sources noted below.

### •Battery replacement

1. Slide open the battery compartment cover on the bottom of the unit and remove the weakened batteries.
2. Load a new set of batteries ensuring that polarity is correct.

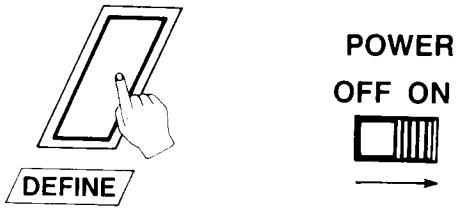
•Replace all six batteries to ensure long battery life.




**Perform the following initialization routine after loading batteries for the first time or if batteries are ever removed from the unit for longer than 5 minutes.**

### <Initialization routine>

Press the power switch to switch the power of the unit ON while holding down the DEFINE key.




•The initialization routine is required to initialize the internal memory.

•The memory contents are retained by the back-up batteries described below. Consequently, be sure to perform the initialization routine after loading batteries for the first time or if batteries are ever removed from the unit for longer than 5 minutes.

**Approximately 8 hours of battery life are provided by high performance (SUM-3) batteries. Battery life is extended to approximately 1 year when main power is supplied by household current or a car battery, and batteries are used for memory back up only. Replace batteries as soon as possible after signs of low power appear (see page 6, POWER DOWN).**

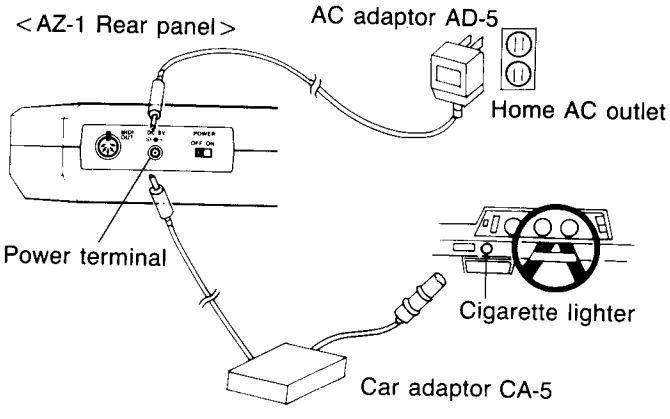
## (2) Using an Adaptor

### <AC power>

An optional AD-5 AC adaptor is required to connect the unit to an AC outlet. The voltage rating of the adaptor (100, 117, 220, 240V) must match the power supply to which the unit is connected to avoid damage to internal circuitry. Batteries should also be loaded for memory back-up even when AC power is used for the main power supply.

### <Car battery>

This unit can also be powered through an automobile's cigarette lighter by using an optional CA-5 car battery adaptor. Batteries should also be loaded for memory back-up even when car battery power is used for the main power supply.

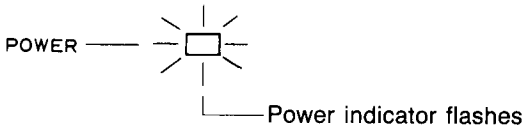


**Batteries are only required for memory back-up when adaptors are used. Normal operation is provided by the adaptors, but memory contents are not retained, and the initialize routine must be performed each time power is switched on after connecting an adaptor.**

- Be sure to switch power OFF whenever connecting or disconnecting adaptors. The initialization routine should also be performed after adaptors are connected if batteries are not loaded in the unit.
- Remove batteries when the unit is not used for extended periods to avoid damage caused by battery leakage.
- Use only the CASIO AC adaptor specified for this unit. Using another type of adaptor can damage the unit.
- The adaptor normally becomes warm when connected to an AC outlet. Disconnect the adaptor whenever possible, especially if the unit is not used for extended periods.

# (3) POWER DOWN

The power indicator will flash as battery power weakens. At this time, replace all 6 batteries with a new set as soon as possible. The battery power supply will cut off automatically if this condition exists for approximately 30 minutes.




# (4) Function Status After Initialization

AZ-1 functions and controls are at the settings shown below after initialization procedures are carried out, as described on page 5.

| Function/Control | Setting After Initialization |
|---|---|
| PROGRAM NUMBER | BANK No. 1, TONE No. 1 |
| DEFINABLE I KEY | MODULATION ON/OFF |
| DEFINABLE II KEY | GLIDE ON/OFF |
| DEFINABLE I WHEEL | MODULATION WHEEL |
| DEFINABLE II WHEEL | MASTER VOLUME |
| DEFINABLE SLIDER | PORTAMENTO TIME |
| MIDI CHANNEL | A selected (A = CH-1, B = CH-2) |
| DEFINABLE I KEY INDICATOR | Not lit (OFF) |
| DEFINABLE II KEY INDICATOR | Not lit (OFF) |
| SOLO KEY INDICATOR | Not lit (OFF) |

*Memory is protected during battery exchange, as long as power is supplied via the AC adaptor. In this case, memory is protected even with AZ-1 power set to OFF. However, if the AC adaptor is not connected, or batteries are dead or not inserted, the unit is initialized automatically when new batteries are inserted or the AC adaptor is connected.

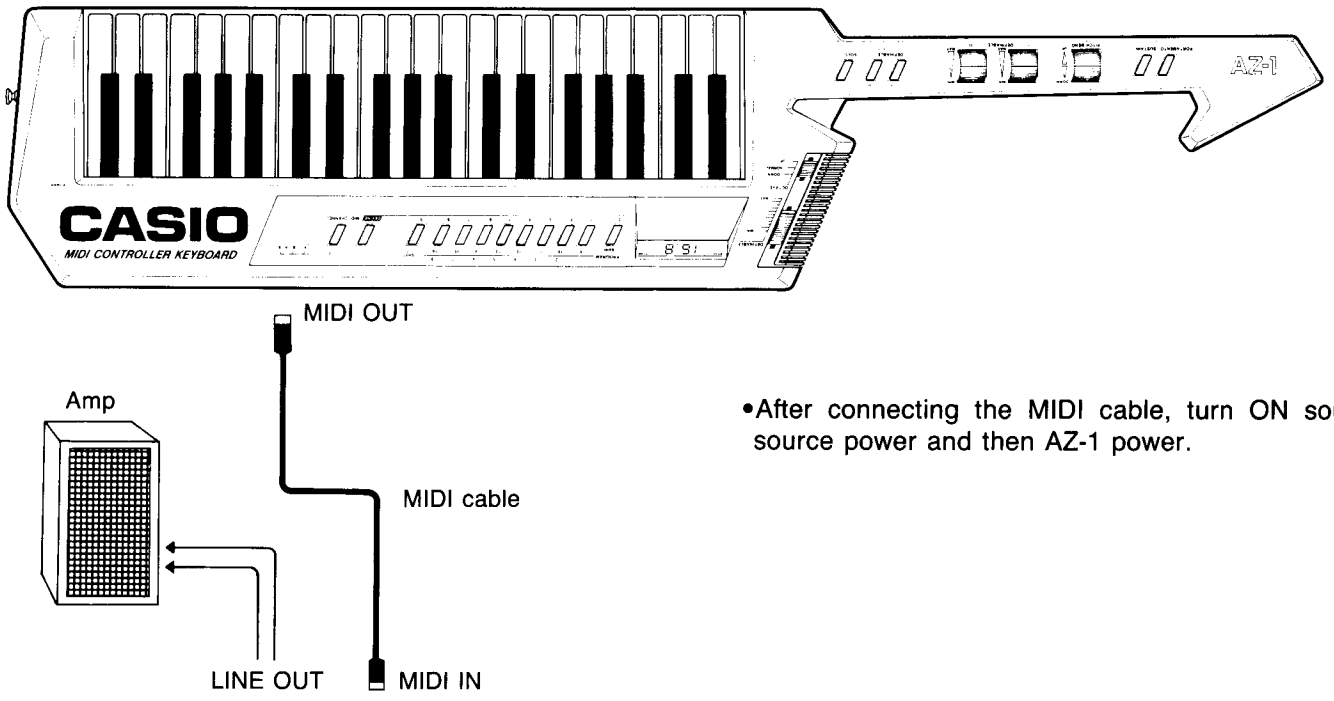
*Memory data is protected for approximately 5 minutes if batteries are exchanged without AC adaptor power supply. Be sure to turn the Power Switch OFF before performing exchange procedures.

# (5) MIDI Messages Output at Power ON

The following MIDI messages are output via MIDI OUT when AZ-1 power is turned ON, in the order shown.

① OMNI MODE OFF
② POLY MODE ON
③ SUSTAIN OFF
④ PITCH WHEEL CHANGE (CENTER value)
⑤ PORTAMENTO OFF
⑥ DEFINABLE I WHEEL (Value according to setting)
⑦ DEFINABLE II WHEEL (Value according to setting)
⑧ DEFINABLE SLIDER (Value according to setting)
⑨ DEFINABLE I KEY OFF
⑩ DEFINABLE II KEY OFF
⑪ PROGRAM CHANGE

# CONNECTIONS




Sound Source Unit (CZ-1, 5000, 3000 etc.)

•After connecting the MIDI cable, turn ON sound source power and then AZ-1 power.

## <MIDI PLUGS>

The MIDI plugs of this unit are equipped with stoppers to avoid accidental disconnection during performances. Use cables which match the stoppers (accessory cables or optional MK-5) for proper connection.

## <USING A STRAP>

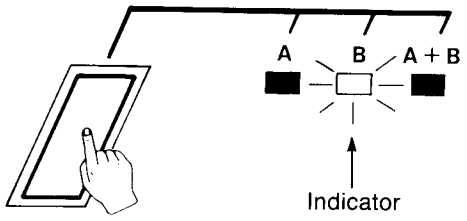
Any standard guitar strap can be used with this unit. A commercially available device which guards against accidental disconnection of the strap can be used to guard against dropping the unit.

# SETTING MIDI CHANNELS

## (1) Setting Transmission Channel Mode

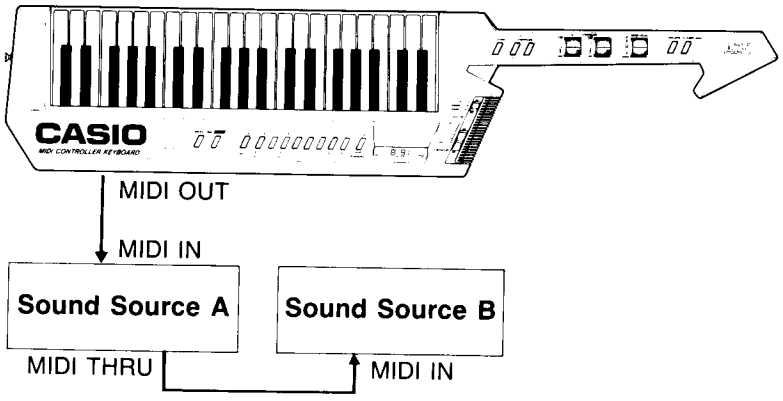
The AZ-1 features 3 different MIDI Transmission Channel Modes – A, B, and A + B. One of these Modes is selected in accordance with the Sound Source to which the AZ-1 is connected. Transmission Channels 1 through 16 can be alloted between Modes A and B, and two different Transmission Channels can transmit data simultaneously when the A + B (Dual) Mode is selected.

When power is turned ON, the AZ-1 is set to MIDI Channel Mode A. Subsequently pressing the MIDI Channel Key changes the Mode to B, A + B, and back to A, as indicated by a lighted LED.




**MIDI CHANNEL**

**(Example of Connection)**




① Connect the AZ-1 MIDI OUT with the MIDI IN of Sound Source A, and connect the MIDI THRU of Sound Source A to the MIDI IN of Sound Source B.
② Set the AZ-1 Mode A Transmission Channel Number and Sound Source A's Reception Channel Number so they coincide.
③ Set the AZ-1 Mode B Transmission Channel Number and Sound Source B's Reception Channel Number so they coincide.

When setup in the above configuration, the AZ-1 controls Sound Source A when set to Mode A, controls Sound Source B when set to Mode B, and can control both Sound Sources simultaneously when set to Mode A + B.

**NOTE**

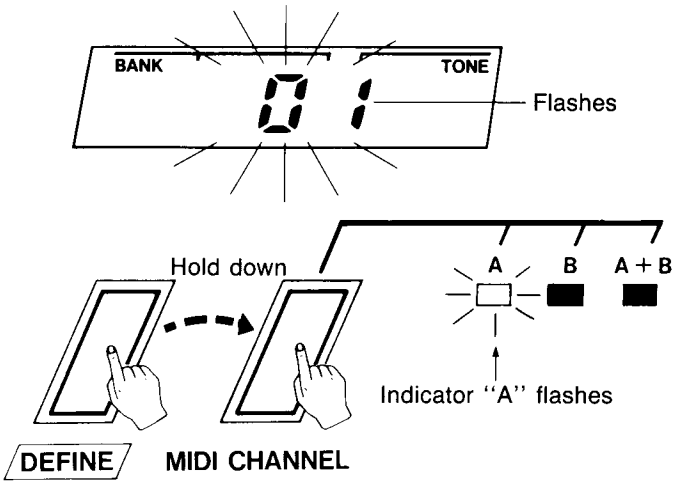
The MIDI Channel Key does not function when;
a) keys are held down on the keyboard.
b) the SUSTAIN Key is pressed.
c) the PITCH BEND Wheel is not in the center position.

# (2) Setting Transmission Channel Numbers

## ①Setting Channel Numbers in Mode A

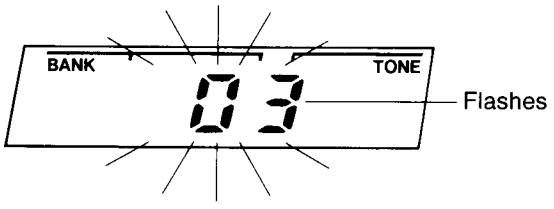
With the AZ-1 set to Channel Mode A, hold down the DEFINE Key and press the MIDI Channel Key. The Channel Number for Mode A can now be set.

•The previously set Channel Number flashes.

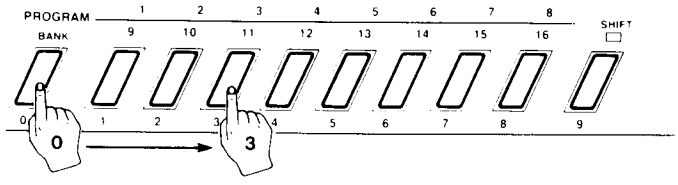



Specify the Transmission Channel Number via the No. Keys (0 ~ 9) located on the Programmer Section.

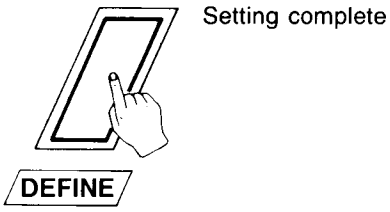
•Any Channel Number between 01 and 16 can be selected, however you cannot select a number which is already assigned to Mode B.




For example, to specify CH-3, press No. Keys 0 through 3, in ascending order.




Press the DEFINE Key once more. The number display ceases to flash, and the specified Transmission Channel Number is set for Mode A.




## ②Setting Channel Numbers in Mode B

With the AZ-1 set to Channel Mode B, hold down the DEFINE Key and press the MIDI Channel Key. The Channel Number for Mode B can now be set. Subsequent procedures are the same as for Mode A.

•Any Channel Number between 01 and 16 can be selected, however you cannot select a number which is already assigned to Mode A.

## ③Setting Channel Numbers in Mode A + B

Perform setting procedures ① and ②.

•Channel Number Setting cannot be performed when Mode A + B is selected.

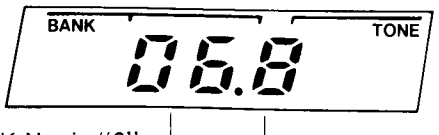
# PROGRAM CHANGE

The AZ-1 is capable of transmitting a total of 128 (0 ~ 127) different Program Changes to connected sound sources. A Program Change is a MIDI Message which alters parameters which control the Sound Source's tone.

•Refer to the MIDI Implementation Chart for the sound source to be used with the AZ-1, to confirm the range of Program Change numbers when set to Receive.

| Program Change | Display | Program Change | Display | Program Change | Display | Program Change | Display | Program Change | Display |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 01.1 | 26 | 04.3 | 52 | 07.5 | 78 | 10.7 | 104 | 14.1 |
| 1 | 01.2 | 27 | 04.4 | 53 | 07.6 | 79 | 10.8 | 105 | 14.2 |
| 2 | 01.3 | 28 | 04.5 | 54 | 07.7 | 80 | 11.1 | 106 | 14.3 |
| 3 | 01.4 | 29 | 04.6 | 55 | 07.8 | 81 | 11.2 | 107 | 14.4 |
| 4 | 01.5 | 30 | 04.7 | 56 | 08.1 | 82 | 11.3 | 108 | 14.5 |
| 5 | 01.6 | 31 | 04.8 | 57 | 08.2 | 83 | 11.4 | 109 | 14.6 |
| 6 | 01.7 | 32 | 05.1 | 58 | 08.3 | 84 | 11.5 | 110 | 14.7 |
| 7 | 01.8 | 33 | 05.2 | 59 | 08.4 | 85 | 11.6 | 111 | 14.8 |
| 8 | 02.1 | 34 | 05.3 | 60 | 08.5 | 86 | 11.7 | 112 | 15.1 |
| 9 | 02.2 | 35 | 05.4 | 61 | 08.6 | 87 | 11.8 | 113 | 15.2 |
| 10 | 02.3 | 36 | 05.5 | 62 | 08.7 | 88 | 12.1 | 114 | 15.3 |
| 11 | 02.4 | 37 | 05.6 | 63 | 08.8 | 89 | 12.2 | 115 | 15.4 |
| 12 | 02.5 | 38 | 05.7 | 64 | 09.1 | 90 | 12.3 | 116 | 15.5 |
| 13 | 02.6 | 39 | 05.8 | 65 | 09.2 | 91 | 12.4 | 117 | 15.6 |
| 14 | 02.7 | 40 | 06.1 | 66 | 09.3 | 92 | 12.5 | 118 | 15.7 |
| 15 | 02.8 | 41 | 06.2 | 67 | 09.4 | 93 | 12.6 | 119 | 15.8 |
| 16 | 03.1 | 42 | 06.3 | 68 | 09.5 | 94 | 12.7 | 120 | 16.1 |
| 17 | 03.2 | 43 | 06.4 | 69 | 09.6 | 95 | 12.8 | 121 | 16.2 |
| 18 | 03.3 | 44 | 06.5 | 70 | 09.7 | 96 | 13.1 | 122 | 16.3 |
| 19 | 03.4 | 45 | 06.6 | 71 | 09.8 | 97 | 13.2 | 123 | 16.4 |
| 20 | 03.5 | 46 | 06.7 | 72 | 10.1 | 98 | 13.3 | 124 | 16.5 |
| 21 | 03.6 | 47 | 06.8 | 73 | 10.2 | 99 | 13.4 | 125 | 16.6 |
| 22 | 03.7 | 48 | 07.1 | 74 | 10.3 | 100 | 13.5 | 126 | 16.7 |
| 23 | 03.8 | 49 | 07.2 | 75 | 10.4 | 101 | 13.6 | 127 | 16.8 |
| 24 | 04.1 | 50 | 07.3 | 76 | 10.5 | 102 | 13.7 | | |
| 25 | 04.2 | 51 | 07.4 | 77 | 10.6 | 103 | 13.8 | | |

When AZ-1 power is turned ON, previously set Program Change data is displayed.



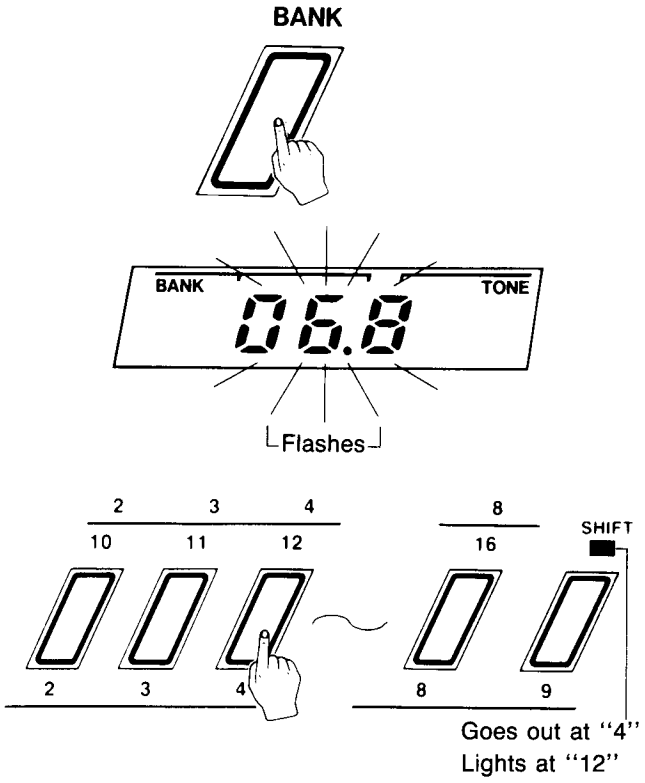

BANK No. is "6"

TONE No. is "8"

•BANK No. can be set from 1 to 16. TONE No. can be set from 1 to 8.

## ①Setting BANK No.

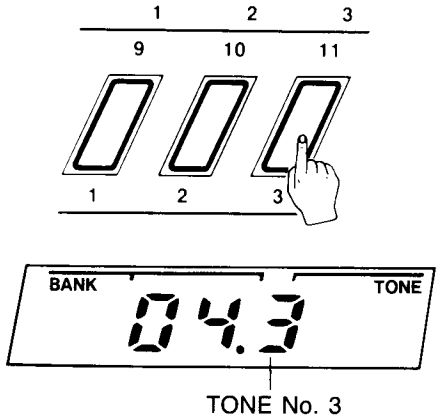
Press the BANK Key on the Programmer Section of the front panel. The BANK No. display flashes. Next, specify the desired BANK No. via the No. Keys.




BANK No.4 ("04" displayed)

## ②Setting TONE No.

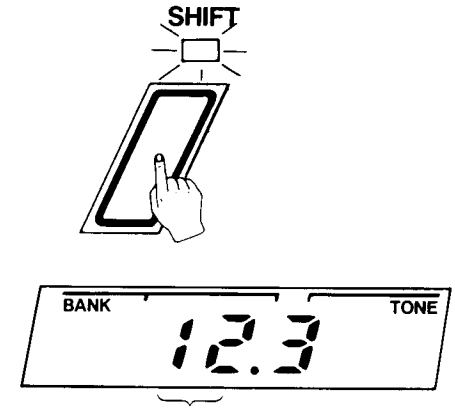
TONE No. can be set via the No. Keys, as long as the BANK Key is not pressed first.




TONE No. 3

## ③Shifting the BANK No.

When the SHIFT Key on the Programmer Section is pressed, the BANK No. shifts forward or backward 8 numbers, depending on the status of the Shift Indicator. When the indicator is ON, BANKS 9 through 16 are selected. When it is OFF, BANKS 1 through 8 are selected.




BANK No. Shifts from "4" to "12"

# AZ-1 BASIC FUNCTIONS

## (1) Key Velocity

The strength of key touch (Initial Touch) is transmitted as KEY VELOCITY data.

- KEY VELOCITY data can be used to control alterations in volume, timbre or pitch, according to settings made on the connected sound source.

## (2) After Touch

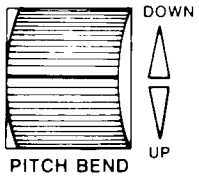
AFTER TOUCH data is transmitted when a note is initially played at a given touch strength, and then subsequently pressed harder.

- The degree and type of changes controlled are set on the connected sound source. When using a CZ-1, MOD AFTER TOUCH DEPTH and AMP AFTER TOUCH RANGE can be controlled at the AZ-1. (See P.14, "DEFINE FUNCTION")

## (3) Pitch Bend

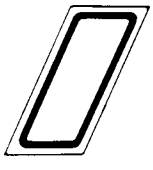
When the Pitch Bend Wheel is rolled up, pitch is raised. When it is rolled down, pitch is lowered.

- BEND RANGE (degree of pitch change) can be controlled at the AZ-1, when connected to a CZ-Series digital synthesizer.




## (4) Portamento

A PORTAMENTO effect is obtained as long as the PORTAMENTO Key is held down.

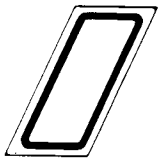


**PORTAMENTO**

- PORTAMENTO TIME can be controlled at the AZ-1. Also, when connected to a CZ-1, PORTAMENTO SWEEP can be controlled at the AZ-1. (See P.14, "DEFINE FUNCTION")

## (5) Sustain

A SUSTAIN effect is obtained, for as long as the SUSTAIN Key is held down.



**SUSTAIN**

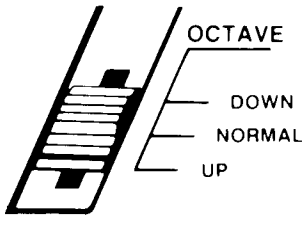
## (6) Solo

Monophonic performance is made possible by pressing the SOLO Key.

- A maximum of 8 notes can be transmitted simultaneously when the SOLO function is OFF. This maximum is doubled — 8 notes + 8 notes — when set to MIDI Channel Mode A + B.

## (7) Octave Shift

The AZ-1 features 3 octaves — OCTAVE UP, NORMAL and OCTAVE DOWN, which can be selected via the OCTAVE SHIFT SWITCH.

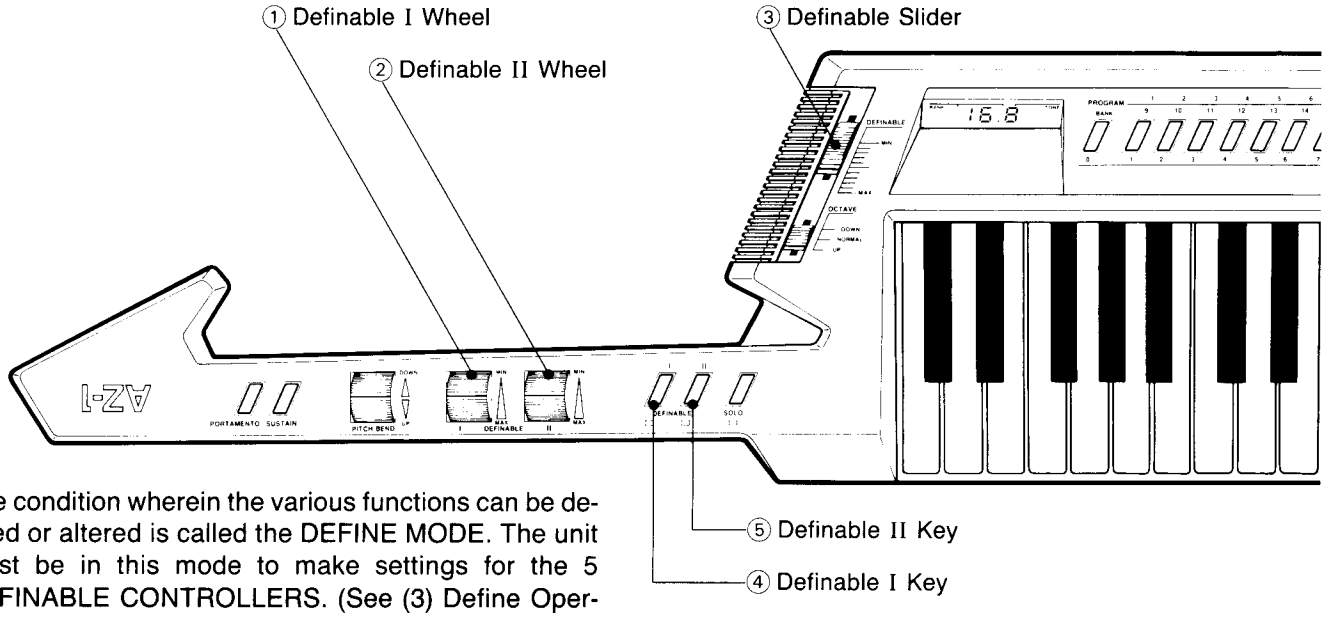


# DEFINE FUNCTION

The AZ-1 features a total of 5 controls (2 wheels, 2 keys and 1 slider) which can be used to set parameters for — or DEFINE — functions transmitted via MIDI. This is called the DEFINE FUNCTION, and the 5 related controls are known as DEFINABLE CONTROLLERS.

## (1) 5 Definable Controllers

The 5 Definable Controllers are located on the Operation Section, as illustrated below:



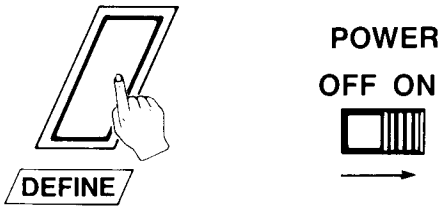

The condition wherein the various functions can be defined or altered is called the DEFINE MODE. The unit must be in this mode to make settings for the 5 DEFINABLE CONTROLLERS. (See (3) Define Operations)

## (2) Function Settings at Initialization

The following functions are assigned to the 5 DEFINABLE CONTROLLERS by performing the Initialization Procedure.

### <Initialization Procedure>

Hold down the DEFINE Key and set the Power Switch on the rear panel to ON.

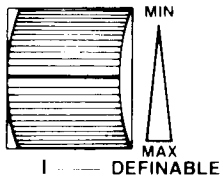



**NOTE:**

Be sure to perform Initialization when using the AZ-1 for the first time, after inserting batteries or connecting the AC adaptor.

### ①Definable I Wheel → Modulation Wheel

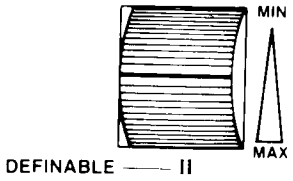
Rotating the wheel in the MAX direction deepens modulation, while rotating it in the MIN direction has the reverse effect. The DEFINABLE Key must be set to ON to obtain this effect.




- The degree of actual change in modulation intensity affected via this function is dependent on settings on the Sound Source. However, when connected to a CZ-1, 5000 or 3000, MOD WHEEL DEPTH can be set at the AZ-1. (See P.18, "SYSTEM EXCLUSIVE MESSAGES")

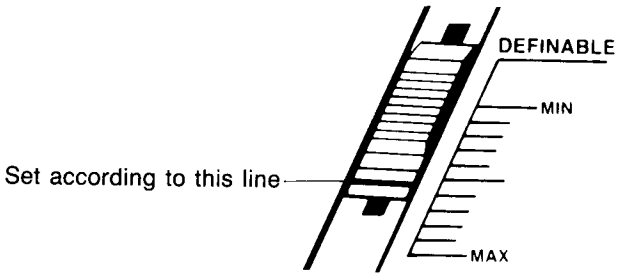
### ②Definable II Wheel → Master Volume

Rotating the wheel in the MAX direction increases output volume. Rotating it in the MIN direction decreases volume.



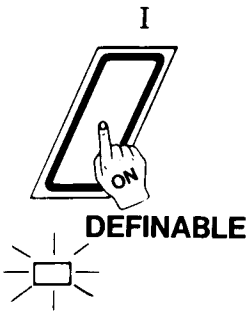

### ③Definable Slider → Portamento Time

Moving the Slider in the MAX direction increases Portamento Time (MAX Time = 99), while moving it in the MIN direction decreases Portamento Time (MIN Time = 00).



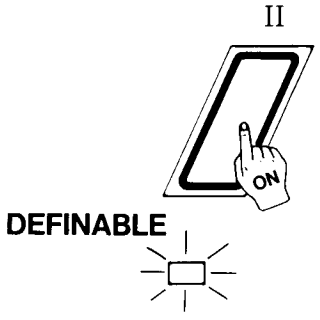

### ④Definable I Key → Modulation ON/OFF

Modulation can be turned ON and OFF when connected to a CZ-1. This controls the status of the MOD WHEEL and MOD. AFTER TOUCH effect.




### ⑤Definable II Key → Glide ON/OFF

Glide can be turned ON and OFF when connected to a CZ-1, 5000 or 3000.



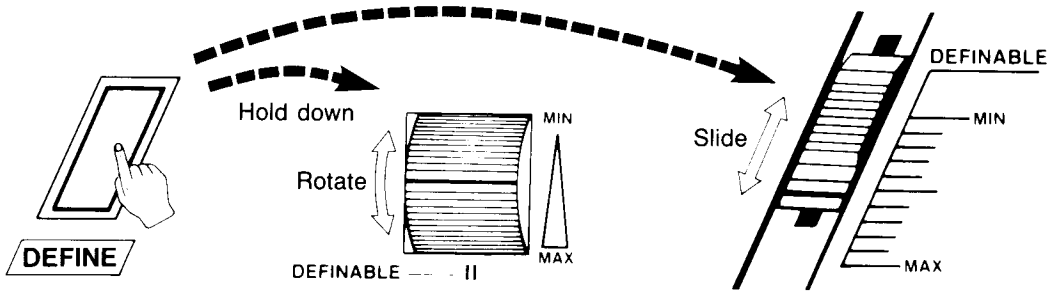

- When connected to a CZ-1, 5000 or 3000, either Portamento or Glide may be selected, but not both simultaneously. Portamento takes precedence when these functions are controlled via the AZ-1, so the Glide effect is automatically cancelled out while the PORTAMENTO Key is pressed. When Portamento is released, the Glide effect comes back on, if set to ON.

## (3) Define Operations

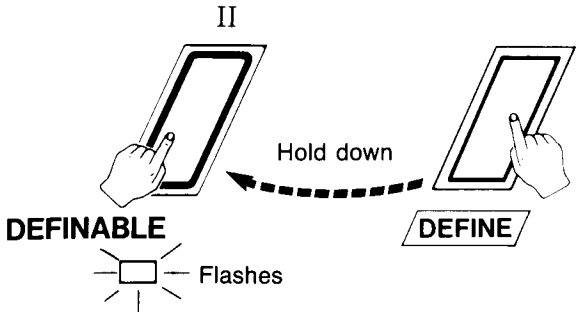
CONTROL CHANGE or SYSTEM EXCLUSIVE Numbers are set after the DEFINE MODE has been set for the Controller which is to be defined or changed.

### ①Setting the Define Mode

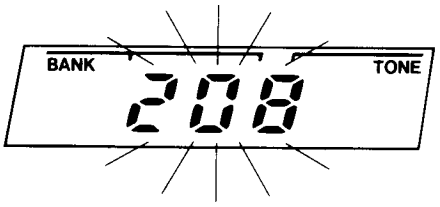
To set the Define Mode for the Wheels or Slider, hold down the DEFINE Key and rotate or slide the Wheel or Slider selected.



To set the Define Mode for the Definable I or II Key, hold down the DEFINE Key and press the key to be defined or changed.




•When the above operations are completed, the LED display changes from the Program Change display to the selected CONTROL CHANGE or SYSTEM EXCLUSIVE Number. This number, which flashes on the display, indicates the DEFINE MODE.

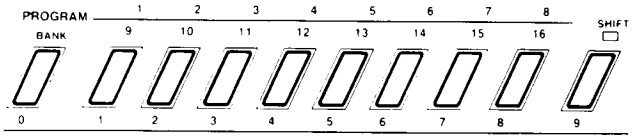



Display Flashes
(DEFINE MODE)

The Key Indicator for the Definable Keys also flashes when the DEFINE MODE is set for the respective keys.

## ②Setting the CONTROL CHANGE or SYSTEM EXCLUSIVE Number

Specify the CONTROL CHANGE or SYSTEM EXCLUSIVE to be controlled via the Number Keys on the Programmer Section.




•Refer to part (4) — Messages Which Can Be Defined — for information on numbers which can be selected.

•The same number cannot be assigned to more than one controller.

## ③Cancelling the Define Mode

Pressing the DEFINE Key once more cancels the Define Mode status, and the display returns to the Program Change display.

•If the number input in step ② was entered correctly, the specified control bcomes possible. If it was not entered properly, the number previously set remains in control.

# (4) Messages Which Can Be Defined

There are two different types of messages which can be controlled by the AZ-1 Definable Controllers. These are CONTROL CHANGE messages and SYSTEM EXCLUSIVE messages. The following lists show the various Control Change messages ①, and System Exclusive messages ②.

## ①CONTROL CHANGE MESSAGES

○:Indicates message received by CZ-Series synthesizer

| CONTROL No. | MESSAGE NAME | CZ-1 | CZ-5000 CZ-3000 | CZ-1000 CZ-101 |
|---|---|---|---|---|
| 0 | DEFINABLE | | | |
| 1 | MODULATION WHEEL | ○ | ○ | ○ |
| 2~4 | DEFINABLE | | | |
| 5 | PORTAMENTO TIME | ○ | ○ | ○ |
| 6 | MASTER TUNE | | ○ | ○ |
| 7 | MASTER VOLUME | ○ | | |
| 8~31 | DEFINABLE | | | |
| 66~121 | DEFINABLE | | | |

**NOTE 1)** Control messages can only be used to control functions which are available on the device used as the sound source. Functions controlled by Control Change Numbers 0, 2~4, 8~31, and 66~121 depend on settings made on the sound source. Refer to the Owner's Manual for the sound source.

**NOTE 2)** When connected to a CZ-Series synthesizer, control parameters are as shown below:

| No. | Message | Definable Wheel or Slider MIN ~ MAX | Definable Key | |
|---|---|---|---|---|
| | | | OFF | ON |
| 1 | MODULATION WHEEL | Wheel Effect<br>MIN ~ MAX<br>*Controls Vibrato ON/OFF on CZ-101 | Wheel Effect<br>MIN | Wheel Effect<br>MAX |
| 5 | PORTAMENTO TIME | 00 ~ 99 | 00 | 99 |
| 6 | MASTER TUNE | −100 cents ~ +100 cents | −100 cents | +100 cents |
| 7 | MASTER VOLUME | MIN ~ MAX | MIN | MAX |

**NOTE 3)** There is actually no practical use for control of MASTER TUNE via the Definable Keys. MASTER TUNE should be controlled via the Definable Wheels or Slider.

## •Message Formats

The following data is transmitted via MIDI OUT when a CONTROL CHANGE is defined via Definable Controller.

| CONTROL No. | MIDI OUT Data |
|---|---|
| 0 ~ 31 | B N \| C C \| $d_1$ $d_2$ (HEX)<br><br>B ..... Indicates CONTROL CHANGE<br>N ..... MIDI Channel<br>CC ..... Control Number put into HEX (16 ) value<br>$d_1d_2$ ..... Data<br><br>*Data value for $d_1d_2$ changes according to the Controller used:<br><br>•Definable I/II Keys<br>OFF → $d_1d_2 = 00_H$ (Min. Value)<br>ON → $d_1d_2 = 7F_H$ (Max. Value)<br><br>•Definable I/II Wheels or Slider<br>MIN ~ MAX → $d_1d_2 = 00_H \sim 7F_H$ (Changes in succession) |
| 66 ~ 121 | •Definable I/II Keys<br>OFF → $d_1d_2 = 00_H$<br>ON → $d_1d_2 = 7F_H$<br><br>•Definable I/II Wheels or Slider<br>MIN ~ CENTER ~ MAX → $d_1d_2 = 7F_H$ (NOTE A)<br>MAX ~ CENTER ~ MIN → $d_1d_2 = 00_H$ (NOTE B)<br><br>**NOTE A)** Maximum value is output via MIDI OUT when Wheels or Slider are moved from the MIN position across the CENTER position as soon as they cross the CENTER position (before they reach MAX position).<br>**NOTE B)** Minimum value or OFF data is output via MIDI OUT when Wheels or Slider are moved from the MAX position across the CENTER position — as soon as they cross the CENTER position (before they reach MIN position). |

## ②SYSTEM EXCLUSIVE MESSAGES

○:Indicates message received by CZ-Series synthesizer

| EXCLUSIVE No. | MESSAGE NAME | CZ-1 | CZ-5000<br>CZ-3000 | CZ-1000<br>CZ-101 |
|---|---|---|---|---|
| 201 | BEND RANGE | ○ | ○ | ○ |
| 202 | KEY TRANSPOSE | ○ | ○ | ○ |
| 203 | TONE MIX | | | ○ |
| 204 | GLIDE NOTE | ○ | ○ | |
| 205 | GLIDE TIME | ○ | ○ | |
| 206 | MOD. WHEEL DEPTH | ○ | ○ | |
| 207 | LEVEL | ○ | ○ | |
| 208 | GLIDE ON/OFF | ○ | ○ | |
| 209 | PORTAMENTO SWEEP | ○ | | |
| 210 | MOD. ON/OFF | ○ | | |
| 211 | MOD. AFTER TOUCH DEPTH | ○ | | |
| 212 | AMP. AFTER TOUCH RANGE | ○ | | |
| 213 | CARTRIDGE ON/OFF | ○ | | |
| 214 | CZ-1 MODE | ○ | | |

**NOTE 1)** When connected to a CZ-Series synthesizer, System Exclusive parameters are as shown below:

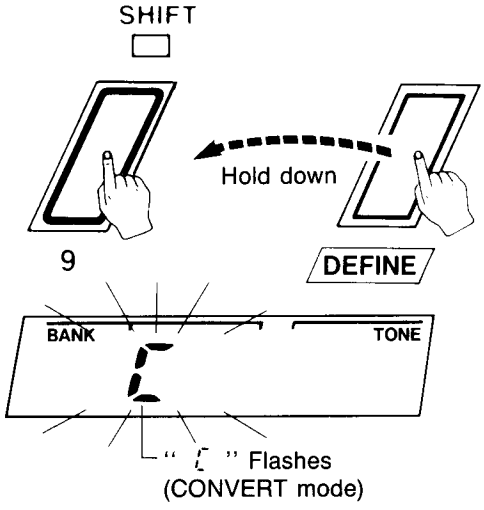
| Message | Definable Wheel or Slider<br>MIN ~ MAX | Definable Key | |
|---|---|---|---|
| | | OFF | ON |
| BEND RANGE | 00 ~ 12 | 03 | 12 |
| KEY TRANSPOSE | G ~ F# | C | F |
| TONE MIX | OFF ~ ON<br>(LEVEL = 01 ~ 09) | OFF | ON<br>LEVEL = 09 |
| GLIDE NOTE | −24 ~ +24<br>* −12 ~ +12 for the CZ-1 | −2 | −12 |
| GLIDE TIME | 00 ~ 99 | 30 | 99 |
| MOD. WHEEL DEPTH | 00 ~ 99 | 50 | 99 |
| LEVEL | 01 ~ 15 | 01 | 15 |
| GLIDE ON/OFF | OFF ~ ON | OFF | ON |
| PORTAMENTO SWEEP | 0 ~ 1 | 0 | 1 |
| MOD. ON/OFF | OFF ~ ON | OFF | ON |
| MOD. AFTER TOUCH DEPTH | 00 ~ 99 | 50 | 99 |
| AMP. AFTER TOUCH RANGE | 00 ~ 15 | 00 | 15 |
| CARTRIDGE ON/OFF | OFF ~ ON | OFF | ON |
| CZ-1 MODE | NORMAL ~ TONE MIX ~<br>KEY SPLIT ~ OPERATION MEMORY | NORMAL<br>MODE | OPERATION<br>MEMORY<br>MODE |

# CONVERT FUNCTION

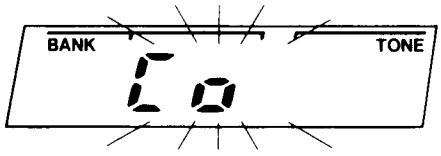
Numbers which have been assigned to the 5 Definable Controllers can be exchanged. For example, a Control Change or System Exclusive number assigned to Definable I Key can be exchanged with the number assigned to Definable I Wheel. Also, Transmission Channel Numbers which have been assigned to MIDI Channel Modes A and B can be exchanged. This is called the CONVERT Function.

## (1) Converting Numbers Assigned to Definable Controllers

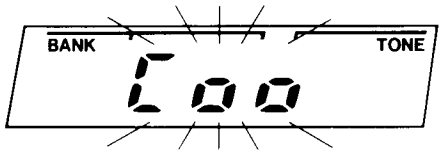
**①Press the BANK SHIFT Key while holding down the DEFINE Key.**
A "C" on the LED display indicates the CONVERT mode.




**②Operate one of the controllers which you want to CONVERT.**
The LED changes, flashing "Co". If the Definable I or II Keys have been pressed, the corresponding indicator also flashes.




**③Next, operate the other controller which will be converted.**
The numbers in the two controllers are exchanged, and the LED indicator flashes "Coo".

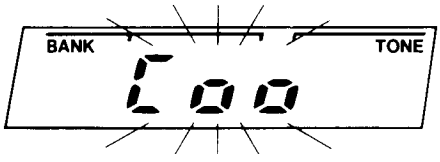



**④Pressing the DEFINE Key once more cancels the CONVERT mode.**
The display returns to the Program Change display.

## (2) Converting Transmission Channel Numbers

**①Press the BANK SHIFT Key while holding down the DEFINE Key.**
A "C" on the LED display indicates the CONVERT mode.

**②Press the MIDI Channel Key.**
Transmission Channel Numbers which have been assigned to Channel Modes A and B respectively are exchanged. Mode A numbers are now in Mode B, and vice versa. The LED indicator flashes "Coo".




**③Pressing the DEFINE Key once more cancels the CONVERT mode.**
The display returns to the Program Change display.

A MIDI OUT Message is transmitted according to the position of the Definable Wheels or Slider at the point where the CONVERT Mode is cancelled, when conversions are made using the Wheels or Slider.

# CARE OF YOUR UNIT

## 1. Avoid heat, humidity, and direct sunlight.

Do not overexpose the unit to direct sunlight, place it near a heater, or in any area subject to high temperature.

## 2. Severe impacts can result in malfunction.

When carrying or transporting the unit, protect the keyboard and buttons by packing with soft cloth.

## 3. Keep the unit free of liquids, dust, particles, etc.

Do not allow foreign matter to enter between the keys. Be especially careful of metallic objects such as hairpins, sewing needles or coins. Also, do not allow the unit to get wet.

## 4. Never attempt to modify any part of the unit.

Your keyboard is a precision musical instrument made up of sophisticated electronic parts. Any modification of, or tampering with internal components can cause trouble or malfunction.

## 5. Do not use lacquer thinner or similar chemicals for cleaning.

Clean the keyboard with a soft cloth dampened with a mild detergent solution. Soak the cloth in the detergent solution and squeeze it until almost dry.

## 6. Remove batteries before extended storage.

Batteries left in the unit for long periods can leak and cause damage to electronic circuitry.

# SPECIFICATIONS

| | |
|---|---|
| **Type of Unit:** | AZ-1 MIDI Controller Keyboard |
| **Keyboard:** | 41 Keys (C ~ E). Initial/After Touch |
| **Wheels:** | Pitch Bend, Definable I/II |
| **ON/OFF Keys:** | Portamento, Sustain, Solo, Definable I/II, Bank Shift |
| **Sliders:** | Definable, Octave Shift (Down/Normal/Up) |
| **Program Change:** | 16 Banks × 8 = 128 (0 ~ 127) |
| **Define Function:** | Function Definition/Alteration via 2 Wheels, 2 Keys and 1 Slider |
| **Convert Function:** | Conversion of assignments of 2 functions controlled by 2 Wheels, 2 Keys and 1 Slider, Conversion or Channel Numbers assigned to MIDI Transmission Channel Modes A and B. |
| **MIDI Channel Modes:** | A, B, A + B |
| **Transmission Channels:** | CH1 ~ 16, set to Mode A or Mode B |
| **Max Transmitted CH No.:** | A = 8, B = 8, A + B = 16 |
| **Display:** | 3-line LED display |
| **IN/OUT Terminals:** | MIDI OUT, DC9V |
| **Power Supply:** | •Batteries: AA-size batteries × 6 (incl. power for memory protection)<br>*Batteries last approximately 8 running hours when used as the main power source.<br>•Household Current: Optional AC Adaptor (AD-5)<br>•Car Battery: Optional Car Adaptor (CA-5) |
| **Power Consumption:** | 1.3 W |
| **Dimensions:** | 1118(L) × 235(D) × 63(H)mm ($44^{3}/_{16}$"(L) × $9^{1}/_{4}$"(D) × $2^{1}/_{2}$"(H)) |
| **Weight:** | 3.8 kg (8.4 lbs) |
| **Accessories:** | Definable Controller labels, MIDI cable (5m), AA-size batteries × 6 |
| **Options:** | Custom hard case (HC-19), AC Adaptor (AD-5), Car Adaptor (CA-5). |

**Designs and specifications are subject to change without notice.*

**GUIDELINES LAID DOWN BY FCC RULES FOR USE OF THE UNIT IN THE U.S.A. (not applicable to other areas).**

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

..... reorient the receiving antenna
..... relocate the computer with respect to the receiver
..... move the computer away from the receiver
..... plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the US Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

# CASIO MIDI CONTROLLER KEYBOARD

## Model AZ-1 MIDI Implementation Chart

| Function ... | | Transmitted | Recognized | Remarks |
|---|---|---|---|---|
| Basic Channel | Default | 1-16CH | × | Simultaneous 2-channel sent possible |
| | Changed | 1-16CH + 1-16CH | × | |
| Mode | Default | Mode 3 | × | |
| | Messages | POLY, MONO (M = 1) | × | |
| | Altered | ********** | × | |
| Note Number: | True voice | 36-76(DOWN), 48-88 (NORMAL),60-100(UP) ********** | × | OCTAVE UP/DOWN possible |
| Velocity | Note ON | ○ 9n v = 1-127 | × | |
| | Note OFF | × 9n v = 0 | | |
| After Touch | Key's | × | × | |
| | Ch's | ○ | × | |
| Pitch Bender | | ○ | × | 8 effective bits |
| Control Change | 0 | ○ (Operator definable) | × | |
| | 1 | ○ | × | MODULATION WHEEL |
| | 2-4 | ○ | × | |
| | 5 | ○ | × | PORTAMENTO TIME |
| | 6 | ○ | × | MASTER TUNE |
| | 7 | ○ | × | MAIN VOLUME |
| | 8-31 | ○ | × | |
| | 64 | ○ | × | SUSTAIN ON/OFF |
| | 65 | ○ | × | PORTAMENTO ON/OFF |
| | 66-121 | ○ (Operator definable) | × | |
| Prog Change: | True # | ○ 0-127 ********** | × | |
| System Exclusive | | ○ | × | GLIDE ON/OFF operator definable |
| System Common | : Song Pos | × | × | |
| | : Song Sel | × | × | |
| | : Tune | × | × | |
| System Real Time | : Clock | × | × | |
| | : Commands | × | × | |
| Aux Mes-sages | : Local ON/OFF | × | × | |
| | : All notes OFF | × | × | |
| | : Active Sense | × | × | |
| | : Reset | × | × | |
| Remarks | | MIDI OUT messages at POWER ON: OMNI OFF, POLY ON, SUSTAIN OFF, PITCH WHEEL CHANGE (central value), PORTAMENTO OFF, DEFINABLE WHEEL (current value), DEFINABLE SLIDER (current value), DEFINABLE SW OFF, PROGRAM CHANGE (backed up No.) | | |

Mode 1 : OMNI ON, POLY
Mode 2 : OMNI ON, MONO
Mode 3 : OMNI OFF, POLY
Mode 4 : OMNI OFF, MONO

○ : Yes
× : No